

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method of generating on a processor-based digital image acquisition device one or more new digital still images using an original digitally-acquired still image including a face, comprising using a processor of the device in:
 - (a) identifying one or more groups of pixels that correspond to a face within a foreground region of the original digitally-acquired still image, wherein the identifying comprises one or more of sub-sampling and weighted sampling of the image to reduce a number of pixels on which computations are performed and to permit face detection in real time or near real time,
 - (b) calculating a degree to which exposure of the face in the foreground within said image differs from a desired exposure of said face within said image, including determining that said face lacks the desired exposure as being shadowed or shot with back light or otherwise insufficiently illuminated during acquisition;
 - (c) based on the identifying of the one or more groups of pixels that correspond to said face and on the degree as a result of the calculating, selecting a portion of the original still image for processing to include the one or more groups of pixels; and
 - (d) automatically generating values of pixels of one or more new still images based on the selected portion in a manner which always includes the face within the one or more new still images which differ from the original digitally-acquired still image by including at least one group of pixels modified at least in luminance exposure of the face including applying a digital fill flash to add light and to boost the luminance ~~apparent exposure~~ of the face in the foreground, as compared with the one or more groups of pixels identified in the foreground of the original digitally-acquired still image.
2. (previously presented) A method as recited in claim 1, further comprising:

(e) gradually displaying a transformation between said original digitally-acquired image and one or more new images.

3. (previously presented) A method as recited in claim 2, further comprising:

(f) adjusting parameters of said transformation between said original digitally-acquired image and one or more new images.

4. (previously presented) A method as recited in claim 3, wherein said parameters of said transformation between said original digitally-acquired image and one or more new images being selected from a set of at least one or more criteria including timing or blending or a combination thereof.

5. (previously presented) A method as recited in claim 4, wherein said blending including dissolving, flying, swirling, appearing, flashing, or screening, or combinations thereof.

6. (previously presented) The method of claim 5, wherein the selected portion further comprises a zoom region, and a new image comprising a zoomed image includes the face enlarged by the zooming.

7. (previously presented) The method of claim 6, further comprising:

~~(d)~~ (g) determining a point of rotation and an amount of rotation after which another image is automatically generated including a rotated version of the face.

8. (previously presented) The method of claim 6, further comprising:

(g) determining one or more further new images each including a new group of pixels corresponding to the face; and

(h) automatically panning using the one or more further new images.

9. (previously presented) The method of claim 8, wherein each of the one or more further new images including pixels corresponding to features different from at least one other image of the one or more further new images.

10. (previously presented) The method of claim 8, further comprising:

(i) determining a point of rotation and an amount of rotation after which another image is automatically generated including a rotated version of the face.

11. (previously presented) The method of claim 6, further comprising:

(g) determining a point of rotation and an amount of rotation such that the generating of the values of the pixels automatically generates a new image including a rotated version of the face by rotating the image about said point of rotation by said amount of rotation.

12. (previously presented) The method of claim 11, further comprising:

(h) determining one or more further new images each including a new group of pixels corresponding to the face; and

(i) automatically panning using the one or more further new images.

13. (previously presented) The method of claim 12, wherein each of the one or more further new images including pixels corresponding to features different from at least one other image of the one or more further new images.

14. (previously presented) The method of claim 6, wherein the generating of the values generating one or more new images each including a new group of pixels corresponding to the face, and further comprising:

(g) generating a panning sequence comprising a sequence of at least two of the original image and the one or more new images.

15. (previously presented) The method of claim 14, wherein each of the one or more new images including pixels corresponding to features different from at least one other image of the one or more new images.

16-22. (cancelled)

23. (currently amended) A method of providing an option for generating on a processor-based digital image acquisition device one or more new digital still images using an original digitally-acquired still image including a face, comprising using a processor of the device in:

(a) identifying one or more groups of pixels that correspond to a face within a foreground region of the original digitally-acquired still image, wherein the identifying comprises one or more of sub-sampling and weighted sampling of the image to reduce a number of pixels on which computations are performed and to permit face detection in real time or near real time,

(b) calculating a degree to which exposure of the face in the foreground region differs from a desired exposure of said face within said image, including determining that said face lacks the desired exposure as being shadowed or shot with back light or otherwise insufficiently illuminated during acquisition;

(c) based on the identifying of the one or more groups of pixels that correspond to said face and on the degree as a result of the calculating, selecting a portion of the original still image for processing to include the one or more groups of pixels; and

(d) automatically providing an option for generating values of pixels of one or more new still images based on the selected portion in a manner which always includes the face within the one or more new still images which differ from the original digitally-acquired still image by including at least one group of pixels modified at least in luminance exposure of the face, including applying a digital fill flash to add light and to boost the luminance ~~apparent exposure~~ of the face in the foreground as compared with the one or more groups of pixels identified in the foreground of the original digitally-acquired still image.

24. (previously presented) The method of claim 23, wherein the selected portion further comprises a zoom region, and a suggested new image comprising a zoomed image includes the face enlarged by the zooming.

25. (previously presented) The method of claim 24, further comprising:

(e) determining a point of rotation and an amount of rotation after which another suggested image includes a rotated version of the face.

26. (previously presented) The method of claim 24, further comprising:

(e) determining one or more further suggested new images each including a new group of pixels corresponding to the face; and

(f) automatically providing an option for generating a panning sequence using at least two of the original image and the one or more further suggested new images.

27. (previously presented) The method of claim 26, wherein each of the one or more further suggested new images including pixels corresponding to features different from at least one other image of the one or more further suggested new images.

28. (previously presented) The method of claim 26, further comprising:

(g) determining a point of rotation and an amount of rotation after which another suggested image includes a rotated version of the face.

29. (previously presented) The method of claim 23, further comprising:

(e) determining a point of rotation and an amount of rotation such that the generating of the values of the pixels includes automatically providing an option to generate a new image including a rotated version of the face by rotating the image about said point of rotation by said amount of rotation.

30. (previously presented) The method of claim 29, further comprising:

(f) determining one or more further suggested new images each including a new group of pixels corresponding to the face; and

(g) automatically providing an option for generating a panning sequence using at least two of the original image and the one or more further suggested new images.

31. (previously presented) The method of claim 30, wherein each of the one or more further suggested new images including pixels corresponding to features different from at least one other image of the one or more further suggested new images.

32. (previously presented) The method of claim 23, wherein the generating of the values for generating one or more new images each including a new group of pixels corresponding to the face, and further comprising:

(e) automatically providing an option for generating a panning sequence comprising a sequence of at least two of the original image and the one or more new images.

33. (previously presented) The method of claim 32, wherein each of the one or more new images including pixels corresponding to features different from at least one other image of the one or more new images.

34-40. (cancelled)

41. (currently amended) One or more computer readable media encoded with a computer program for programming one or more processors to perform a method of generating one or more new digital still images using an original digitally-acquired still image including a face, the method comprising:

(a) identifying one or more groups of pixels that correspond to a face within a foreground region of the original digitally-acquired still image, wherein the identifying comprises one or more of sub-sampling and weighted sampling of the image to reduce

a number of pixels on which computations are performed and to permit face detection in real time or near real time,

(b) calculating a degree to which exposure of the face within the foreground region from a desired exposure of said face within said image, including determining that said face lacks the desired exposure as being shadowed or shot with back light or otherwise insufficiently illuminated during acquisition;

(c) based on the identifying of the one or more groups of pixels that correspond to said face and on the degree as a result of the calculating, selecting a portion of the original still image for processing to include the one or more groups of pixels; and

(d) automatically generating values of pixels of one or more new still images based on the selected portion in a manner which always includes the face within the one or more new still images which differ from the original digitally-acquired still image by including at least one group of pixels modified at least in luminance ~~exposure~~ of the face, including applying a digital fill flash to add light and to boost the luminance ~~apparent exposure~~ of the face in the foreground as compared with the one or more groups of pixels identified in the foreground of the original digitally-acquired still image.

42. (previously presented) The one or more computer readable media as recited in claim 41, the method further comprising:

(e) gradually displaying a transformation between said original digitally-acquired image and one or more new images.

43. (previously presented) The one or more computer readable media as recited in claim 42, the method further comprising:

(f) adjusting parameters of said transformation between said original digitally-acquired image and one or more new images.

44. (previously presented) The one or more computer readable media as recited in claim 43, wherein said parameters of said transformation between said original digitally-

acquired image and one or more new images being selected from a set of at least one or more criteria including timing or blending or a combination thereof.

45. (previously presented) The one or more computer readable media as recited in claim 44, wherein said blending including dissolving, flying, swirling, appearing, flashing, or screening, or combinations thereof.

46. (previously presented) The one or more computer readable media of claim 45, wherein the selected portion further comprises a zoom region, and a new image comprising a zoomed image includes the face enlarged by the zooming.

47. (previously presented) The one or more computer readable media of claim 46, the method further comprising:

(g) determining a point of rotation and an amount of rotation after which another image is automatically generated including a rotated version of the face.

48. (previously presented) The one or more computer readable media of claim 46, the method further comprising:

(g) determining one or more further new images each including a new group of pixels corresponding to the face; and

(h) automatically panning using the one or more further new images.

49. (previously presented) The one or more computer readable media of claim 48, wherein each of the one or more further new images including pixels corresponding to features different from at least one other image of the one or more further new images.

50. (previously presented) The one or more computer readable media of claim 48, the method further comprising:

(i) determining a point of rotation and an amount of rotation after which another image is automatically generated including a rotated version of the face.

51. (previously presented) The one or more computer readable media of claim 46, the method further comprising:

(g) determining a point of rotation and an amount of rotation such that the generating of the values of the pixels automatically generates a new image including a rotated version of the face by rotating the image about said point of rotation by said amount of rotation.

52. (previously presented) The one or more computer readable media of claim 51, the method further comprising:

(h) determining one or more further new images each including a new group of pixels corresponding to the face; and

(i) automatically panning using the one or more further new images.

53. (previously presented) The one or more computer readable media of claim 52, wherein each of the one or more further new images including pixels corresponding to features different from at least one other image of the one or more further new images.

54. (previously presented) The one or more computer readable media of claim 46, wherein the generating of the values generating one or more new images each including a new group of pixels corresponding to the face, and the method further comprising:

(g) generating a panning sequence comprising a sequence of at least two of the original image and the one or more new images.

55. (previously presented) The one or more computer readable media of claim 54, wherein each of the one or more new images including pixels corresponding to features different from at least one other image of the one or more new images.

56-62. (cancelled)

63. (currently amended) One or more computer readable media encoded with a computer program for programming one or more processors to perform a method of providing an option for generating one or more new digital still images using an original digitally-acquired still image including a face, the method comprising:

(a) identifying one or more groups of pixels that correspond to a face within a foreground region of the original digitally-acquired still image, wherein the identifying comprises one or more of sub-sampling and weighted sampling of the image to reduce a number of pixels on which computations are performed and to permit face detection in real time or near real time,

(b) calculating a degree to which exposure of the face within said image differs from a desired exposure of said face within said image, including determining that said face lacks the desired exposure as being shadowed or shot with back light or otherwise insufficiently illuminated during acquisition;

(c) based on the identifying of the one or more groups of pixels that correspond to said face and on the degree as a result of the calculating, selecting a portion of the original still image for processing to include the one or more groups of pixels; and

(d) automatically providing an option for generating values of pixels of one or more new still images based on the selected portion in a manner which always includes the face within the one or more new still images which differ from the original digitally-acquired still image by including at least one group of pixels modified at least in luminance ~~exposure~~ of the face, including applying a digital fill flash to add light and to boost the luminance ~~apparent exposure~~ of the face in the foreground as compared with the one or more groups of pixels identified in the foreground of the original digitally-acquired still image.

64. (previously presented) The one or more computer readable media of claim 63, wherein the selected portion further comprises a zoom region, and a suggested new image comprising a zoomed image includes the face enlarged by the zooming.

65. (previously presented) The one or more computer readable media of claim 64, the method further comprising:

(e) determining a point of rotation and an amount of rotation after which another suggested image includes a rotated version of the face.

66. (previously presented) The one or more computer readable media of claim 64, the method further comprising:

(e) determining one or more further suggested new images each including a new group of pixels corresponding to the face; and

(f) automatically providing an option for generating a panning sequence using at least two of the original image and the one or more further suggested new images.

67. (previously presented) The one or more computer readable media of claim 66, wherein each of the one or more further suggested new images including pixels corresponding to features different from at least one other image of the one or more further suggested new images.

68. (previously presented) The one or more computer readable media of claim 66, the method further comprising:

(g) determining a point of rotation and an amount of rotation after which another suggested image includes a rotated version of the face.

69. (previously presented) The one or more computer readable media of claim 63, the method further comprising:

(e) determining a point of rotation and an amount of rotation such that the generating of the values of the pixels including automatically providing an option to generate a new image including a rotated version of the face by rotating the image about said point of rotation by said amount of rotation.

70. (previously presented) The one or more computer readable media of claim 69, the method further comprising:

(f) determining one or more further suggested new images each including a new group of pixels corresponding to the face; and

(g) automatically providing an option for generating a panning sequence using at least two of the original image and the one or more further suggested new images.

71. (previously presented) The one or more computer readable media of claim 70, wherein each of the one or more further suggested new images including pixels corresponding to features different from at least one other image of the one or more further suggested new images.

72. (previously presented) The one or more computer readable media of claim 63, wherein the generating of the values for generating one or more new images each including a new group of pixels corresponding to the face, and the method further comprising:

(e) automatically providing an option for generating a panning sequence comprising a sequence of at least two of the original image and the one or more new images.

73. (previously presented) The one or more computer readable media of claim 72, wherein each of the one or more new images including pixels corresponding to features different from at least one other image of the one or more new images.

74-80. (cancelled)

81. (previously presented) The method of claim 1, wherein the one or more new still images comprise a plurality of new still images.

82. (previously presented) The method of claim 23, wherein the one or more new still images comprise a plurality of new still images.

83. (previously presented) The one or more computer readable media of claim 41, wherein the one or more new still images comprise a plurality of new still images.

84. (previously presented) The one or more computer readable media of claim 63, wherein the one or more new still images comprise a plurality of new still images.

85. (currently amended) A method of generating one or more new digital still images using an original digitally-acquired still image including a face, the method being performed on a portable digital camera that includes a processor and one or more digital storage media containing program code and for storing image data, as well as a lens and an image sensor for capturing the original digitally-acquired image, the method comprising using a processor in:

(a) identifying one or more groups of pixels that correspond to a face within a foreground region of the original digitally-acquired still image, wherein the identifying comprises one or more of sub-sampling and weighted sampling of the image to reduce a number of pixels on which computations are performed and to permit face detection in real time or near real time,

(b) calculating on the portable digital camera a degree to which exposure of the face within said image differs from a desired exposure of said face within said image, including determining that said face lacks the desired exposure as being shadowed or shot with back light or otherwise insufficiently illuminated during acquisition;

(c) based on the identifying of the one or more groups of pixels that correspond to said face and on the degree as a result of the calculating, selecting a portion of the original still image for processing to include the one or more groups of pixels; and

(d) automatically generating on the portable digital camera values of pixels of one or more new still images based on the selected portion in a manner which always includes the face within the one or more new still images which differ from the original

digitally-acquired still image by including at least one group of pixels modified at least in apparent exposure of the face, including applying a digital fill flash to add light and to boost the apparent exposure of the face in the foreground as compared with the one or more groups of pixels identified in the foreground of the original digitally-acquired still image.

86. (previously presented) A method as recited in claim 85, further comprising:

(e) gradually displaying a transformation between said original digitally-acquired image and one or more new images.

87. (previously presented) A method as recited in claim 86, further comprising:

(f) adjusting parameters of said transformation between said original digitally-acquired image and one or more new images.

88. (previously presented) A method as recited in claim 87, wherein said parameters of said transformation between said original digitally-acquired image and one or more new images being selected from a set of at least one or more criteria including timing or blending or a combination thereof.

89. (previously presented) A method as recited in claim 88, wherein said blending including dissolving, flying, swirling, appearing, flashing, or screening, or combinations thereof.

90. (previously presented) The method of claim 89, further comprising:

(g) determining a point of rotation and an amount of rotation after which another image is automatically generated including a rotated version of the face.

91. (previously presented) The method of claim 89, further comprising:

(g) determining one or more further new images each including a new group of pixels corresponding to the face; and

(h) automatically panning using the one or more further new images.

92. (currently amended) A method of providing an option for generating one or more new digital still images using an original digitally-acquired still image including a face, the method being performed on a portable digital camera that includes a processor and one or more digital storage media containing program code and for storing image data, as well as a lens and an image sensor for capturing the original digitally-acquired image, the method comprising using a processor in:

(a) identifying one or more groups of pixels that correspond to a face within a foreground region of the original digitally-acquired still image, wherein the identifying comprises one or more of sub-sampling and weighted sampling of the image to reduce a number of pixels on which computations are performed and to permit face detection in real time or near real time,

(b) calculating on the portable digital camera a degree to which exposure of the face within the foreground region of said image differs from a desired exposure of said face within said image, including determining that said face lacks the desired exposure as being shadowed or shot with back light or otherwise insufficiently illuminated during acquisition;

(c) based on the identifying of the one or more groups of pixels that correspond to said face and on the degree as a result of the calculating, selecting a portion of the original still image for processing to include the one or more groups of pixels; and

(d) automatically providing an option for generating on the portable digital camera values of pixels of one or more new still images based on the selected portion in a manner which always includes the face within the one or more new still images which differ from the original digitally-acquired still image by including at least one group of pixels modified at least in apparent exposure of the face including applying a digital fill flash to add light and to boost the apparent exposure of the face in the foreground as compared with the one or more groups of pixels identified in the foreground region original digitally-acquired still image.

93. (previously presented) The method of claim 92, wherein the selected portion comprising a zoom region and a suggested new image comprising a zoomed image including the face enlarged by the zooming.

94. (previously presented) The method of claim 93, further comprising:
(e) determining a point of rotation and an amount of rotation after which another suggested image includes a rotated version of the face.

95. (previously presented) The method of claim 93, further comprising:
(e) determining one or more further suggested new images each including a new group of pixels corresponding to the face; and
(f) automatically providing an option for generating a panning sequence using at least two of the original image and the one or more further suggested new images.

96. (previously presented) The method of claim 92, further comprising:
(e) determining a point of rotation and an amount of rotation such that the generating of the values of the pixels includes automatically providing an option to generate a new image including a rotated version of the face by rotating the image about said point of rotation by said amount of rotation.

97. (previously presented) The method of claim 96, further comprising:
(f) determining one or more further suggested new images each including a new group of pixels corresponding to the face; and
(g) automatically providing an option for generating a panning sequence using at least two of the original image and the one or more further suggested new images.

98. (previously presented) The method of claim 92, wherein the generating of the values for generating one or more new images each including a new group of pixels corresponding to the face, and further comprising:

(e) automatically providing an option for generating a panning sequence comprising a sequence of at least two of the original image and the one or more new images.

99. (currently amended) A portable digital camera including a processor and one or more computer readable media containing program code and for storing image data, as well as a lens and an image sensor for capturing digital images, wherein the one or more computer readable media are encoded with a computer program for programming one or more processors to perform a method of generating one or more new digital still images using an original digitally-acquired still image including a face, the method comprising using the processor of the camera in:

(a) identifying one or more groups of pixels that correspond to a face within a foreground region of the original digitally-acquired still image, wherein the identifying comprises one or more of sub-sampling and weighted sampling of the image to reduce a number of pixels on which computations are performed and to permit face detection in real time or near real time,

(b) calculating on the portable digital camera a degree to which exposure of the face within the foreground region of said image differs from a desired exposure of said face within said image, including determining that said face lacks the desired exposure as being shadowed or shot with back light or otherwise insufficiently illuminated during acquisition;

(c) based on the identifying of the one or more groups of pixels that correspond to said face and on the degree as a result of the calculating, selecting a portion of the original still image for processing to include the one or more groups of pixels; and

(d) automatically generating on the portable digital camera values of pixels of one or more new still images based on the selected portion in a manner which always includes the face within the one or more new still images which differ from the original digitally-acquired still image by including at least one group of pixels modified at least in apparent exposure of the face including applying a digital fill flash to add light and to

boost the apparent exposure of the face in the foreground as compared with the one or more groups of pixels identified in the original digitally-acquired still image.

100. (previously presented) The one or more computer readable media as recited in claim 99, the method further comprising:

(e) gradually displaying a transformation between said original digitally-acquired image and one or more new images.

101. (previously presented) The one or more computer readable media as recited in claim 100, the method further comprising:

(f) adjusting parameters of said transformation between said original digitally-acquired image and one or more new images.

102. (previously presented) The one or more computer readable media as recited in claim 101, wherein said parameters of said transformation between said original digitally-acquired image and one or more new images being selected from a set of at least one or more criteria including timing or blending or a combination thereof.

103. (previously presented) The one or more computer readable media as recited in claim 102, wherein said blending including dissolving, flying, swirling, appearing, flashing, or screening, or combinations thereof.

104. (previously presented) The one or more computer readable media of claim 99, the method further comprising:

(e) determining a point of rotation and an amount of rotation such that the generating of the values of the pixels automatically generates a new image including a rotated version of the face by rotating the image about said point of rotation by said amount of rotation.

105. (previously presented) The one or more computer readable media of claim 99, wherein the generating of the values generating one or more new images each including a new group of pixels corresponding to the face, and the method further comprising:

(e) generating a panning sequence comprising a sequence of at least two of the original image and the one or more new images.

106. (currently amended) A portable digital camera including a processor and one or more computer readable media containing program code and for storing image data, as well as a lens and an image sensor for capturing digital images, wherein the one or more computer readable media are encoded with a computer program for programming one or more processors to perform a method of providing an option for generating one or more new digital still images using an original digitally-acquired still image including a face, the method comprising using the processor of the camera in:

(a) identifying one or more groups of pixels that correspond to a face within a foreground region of the original digitally-acquired still image, wherein the identifying comprises one or more of sub-sampling and weighted sampling of the image to reduce a number of pixels on which computations are performed and to permit face detection in real time or near real time,

(b) calculating on the portable digital camera a degree to which exposure of the face within the foreground region of said image differs from a desired exposure of said face within said image, or combinations thereof;

(c) based on the identifying of the one or more groups of pixels that correspond to said face and on the degree as a result of the calculating, selecting a portion of the original still image for processing to include the one or more groups of pixels; and

(d) automatically providing an option for generating on the portable digital camera values of pixels of one or more new still images based on the selected portion in a manner which always includes the face within the one or more new still images which differ from the original digitally-acquired still image by including at least one group of pixels modified at least in apparent exposure of the face including applying a digital fill

flash to add light and to boost the apparent exposure of the face in the foreground as compared with the one or more groups of pixels identified in the original digitally-acquired still image.

107. (previously presented) The one or more computer readable media of claim 106, the method further comprising:

(e) determining a point of rotation and an amount of rotation such that the generating of the values of the pixels includes automatically providing an option to generate a new image including a rotated version of the face by rotating the image about said point of rotation by said amount of rotation.

108. (previously presented) The one or more computer readable media of claim 107, the method further comprising:

(f) determining one or more further suggested new images each including a new group of pixels corresponding to the face; and

(g) automatically providing an option for generating a panning sequence using at least two of the original image and the one or more further suggested new images.

109. (previously presented) The one or more computer readable media of claim 108, wherein each of the one or more further suggested new images including pixels corresponding to features different from at least one other image of the one or more further suggested new images.

110. (previously presented) The one or more computer readable media of claim 106, wherein the generating of the values for generating one or more new images each including a new group of pixels corresponding to the face, and the method further comprising:

(e) automatically providing an option for generating a panning sequence comprising a sequence of at least two of the original image and the one or more new images.

111. (previously presented) The one or more computer readable media of claim 110, wherein each of the one or more new images including pixels corresponding to features different from at least one other image of the one or more new images.

112. (previously presented) The one or more computer readable media of claim 106, wherein the one or more new still images comprise a plurality of new still images.